

24. A method for increasing expression of at least one first nucleic acid molecule by a vector comprising the first nucleic acid molecule, wherein the expression is in a cell having a particular phenotype, and the method comprises modifying the vector to comprise at least one second nucleic acid molecule encoding a transcription factor and a translation factor, wherein there is substantially co-temporal expression of the first and second nucleic acid molecules with respect to the phenotype of the cell, whereby expression of the second nucleic acid molecule enhances expression of the first nucleic acid molecule by enhancing transcription or transcription and translation.

25. A method for expressing a gene product in vitro comprising infecting, or transfecting, a suitable cell with a vector as claimed in claim 1.

26. A method for expressing the first nucleic acid molecule in vivo comprising administering the vector of claim 1 to a host.

27. A vector for enhanced expression of at least one first nucleic acid molecule in a cell having a particular phenotype, said vector having a particular phenotype and is modified to comprise the first nucleic acid molecule and at least one second nucleic acid molecule encoding a transcription factor or encoding a transcription factor and a translation factor, wherein there is substantially co-temporal expression of the first and second nucleic acid molecules with respect to the phenotype of the cell and the time of expression is matched with the phenotype of the vector, whereby expression of the second nucleic acid molecule enhances expression of the first nucleic acid molecule by enhancing transcription or transcription and translation.

28. The vector of claim 27 wherein the first nucleic acid molecule is operably linked to a first promoter and the second nucleic acid molecule is operably linked to a second promoter, and the first and second promoters function substantially co-temporally and the time of expression is matched with the phenotype of the vector.

29. The vector of claim 28 wherein the first and second nucleic acid molecules are at different loci within the vector.

30. The vector of claim 28 wherein the first and second nucleic acid molecules are at the same locus within the vector.

31. The vector of claim 27 wherein the first nucleic acid molecule and the second nucleic acid molecule are operably linked to the same promoter.

32. The vector of claim 27 wherein transcription factor is of poxvirus origin.

33. The vector of claim 32 wherein the transcription factor is from a vaccinia virus.

34. The vector of claim 33 wherein the transcription factor is from an open reading frame selected from the group consisting of H4L, D6, A7, G8R, A1L, A2L, H5R, and combinations thereof.

35. The vector of claim 27 wherein the second nucleic acid molecule is comprised of at least one transcription factor and at least one translation factor.

36. The vector of claim 27 wherein the translation factor effects inhibition of eIF-2 α phosphorylation or inhibition of PKR phosphorylation or otherwise sequesters dsRNA, decreasing the cellular dsRNA content which increases the effective concentration of dsRNA.

37. The vector of claim 36 wherein said at least one second molecule is selected from the group consisting of: a K3L open reading frame, an E3L open reading frame, a VAI

RNA open reading frame, an EBER RNA open reading frame, a sigma 3 open reading frame, a TRBP open reading frame, and combinations thereof.

38. The vector of claim 27 wherein said first nucleic acid molecule encodes a molecule selected from the group consisting of an epitope of interest, a biological response modulator, a growth factor, a recognition sequence, and a fusion protein.

39. The vector of claim 27 which is a recombinant virus.

40. The vector of claim 39 which is a recombinant poxvirus.

41. A method for preparing a vector as claimed in claim 27 comprising modifying the vector to comprise the at least one second nucleic acid molecule, and optionally also modifying the vector to comprise the first nucleic acid molecule, so that there is substantially co-temporal expression of the first and second nucleic acid molecules with respect to the phenotype or the cell, and the time of expression is matched to the phenotype of the vector.

42. The method for claim 41 comprising operably linking the first nucleic acid molecule to a first promoter and the second nucleic acid molecule to a second promoter, wherein the first and second promoters are functional substantially co-temporally and the time of expression is matched to the phenotype of the vector.

43. The method for claim 41 comprising operably linking the first and second nucleic acid molecules to a promoter, wherein the first and second promoters are functional substantially co-temporally and the time of expression is matched to the phenotype of the vector.

44. An immunological, immunogenic or vaccine composition comprising the vector of claim 27 and a pharmaceutically acceptable carrier or diluent.

45. A method for generating an immunological or immunogenic response in a host comprising administering to the host the composition of claim 44.

46. A method for increasing expression of at least one first nucleic acid molecule by a vector comprising the first nucleic acid molecule, wherein the expression is in a cell having a particular phenotype and the vector has a particular phenotype, and the method comprises modifying the vector to comprise at least one second nucleic acid molecule encoding a transcription factor or encoding a transcription factor and a translation factor, wherein there is substantially co-temporal expression of the first and second nucleic acid molecules with respect to the phenotype of the cell and the time of expression is matched to the phenotype of the vector, whereby expression of the second nucleic acid molecule enhances expression of the first nucleic acid molecule by enhancing transcription or transcription and translation.

47. A method for expressing a gene product in vitro comprising infecting, or transfecting, a suitable cell with a vector as claimed in claim 27.

48. A method for expressing the first nucleic acid molecule in vivo comprising administering the vector of claim 27 to a host.

49. The vector of claim 27 wherein the transcription factor is a viral transcription factor.

50. The vector of claim 27 wherein the translation factor is a viral translation factor.

51. The vector of claim 50 wherein the transcription factor is a viral transcription factor.